

WHAT IS CLAIMED IS:

1. A cosmetic brush assembly comprising a brush having a binding portion of which central is formed with a penetration hole on its lower part, a first member projectably
5 inserted with the brush, a second member slidably received with the lower portion of the first member, and a protection cap covering over the upper portion of the first member; wherein the cosmetic brush assembly further comprises,
a length variable member having a supporting disc fixed on the bottom interior of the second member and having a given length outermost segment extending upward, and
10 a plurality of cylindrical segments involved in the hollow portion of the outermost segment and having a different diameter, respectively, and when the length variable member is constricted, a gap is formed between the upper inner periphery of the outermost segment and a upper outer periphery of a innermost segment among the segments; and
15 a brush-supporting structure having a plate involved in the first member, the brush member is mounted on the plate, the lower surface of the plate is provided with a groove coupled with the end portion of the innermost segment and an outward projection extending downward adjacent to the groove and being capable of strongly fitted into the gap formed on the upper end of the outermost segment;
20 wherein, the plate of the brush-supporting structure is provided with a upward extending member penetrating the hole formed in the center of the binding portion and having a coupling groove at its upper end portion, the interior of the protection cap is provided with a pressing projection being capable of strongly fitting with the coupling groove of the extending portion.

2. A cosmetic brush assembly according to claim 1, wherein the lower outside of the segments of the length variable member is provided with a bump having a slant surface inclined into the downward out.

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3. A cosmetic brush assembly according to claim 1, wherein the interior of the segments is formed with a guide groove extending in the up and down direction, the lower portion of the segments is provided with a guide projection coupling into the guide groove.

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4. A cosmetic brush assembly according to claim 1, wherein the interior of the first member is provided with a disc seated with the plate.

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5. A cosmetic brush assembly according to claim 1, wherein the end portion of the pressing projection of the protection cap has a sharp shape.

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6. A cosmetic brush assembly comprising a brush having a binding portion of which central is formed with a penetration hole on its lower part, a first member into which the brush is projectably inserted, a second member into which the lower portion of the first member is slidably received, and a protection cap covering over the upper portion of the first member; wherein the cosmetic brush assembly further comprises, a brush-supporting structure having a plate on which the brush is mounted and a tubular body integrally manufactured with both a mounting portion on which the plate is mounted and a tubular portion projecting downward from the mounting portion, the

bottom of the mounting portion is formed with an aperture communicating with the hollow portion of the penetrating portion, the plate is provided with a upward extending member projecting upward to pass through the penetration hole formed in the central of the brush and having a groove formed under on its lower surface and a
 5 coupling groove formed on its upper portion;

a guiding member having an aperture on its bottom, into which the tubular body separably tightly fit, and which is fixed at the lower hollow portion of the first member; and

a length variable member having a supporting disc fixed on the lower interior of the
 10 second member and having a outermost segment being capable of penetrating through the aperture of the guiding member, and a innermost segment slidably held in the hollow portion of the outermost segment and engaged with the groove of the plate; wherein, the inner side of the protection cap is provided with a pressing projection being capable of fitting with the coupling groove of the upward extending portion.

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7. A cosmetic brush assembly according to claim 6, wherein the tubular portion is provided with a cutting-off portion extending vertically downward, the width of the cutting-off portion is changed according to the extent of the engagement between the tubular portion and the guiding member.

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8. A cosmetic brush assembly according to claim 6, wherein an outer bump is provided at the lower portion of the outermost segment adjacent to the supporting disc.

9. A cosmetic brush assembly according to claim 6, wherein an elastic member

enclosing the segments of the length-variable member is provided in the hollow portions of both the tubular body and guiding member.

10. A cosmetic brush assembly according to claim 6, wherein the outer surface of
5 the tubular portion has a slant surface extending downward from the mounting portion and then sloping inside thereof.

11. A cosmetic brush assembly comprising a brush member having a brush with a
binding portion of which central is formed with a penetration hole on its lower part, a
10 first member into which the brush is projectably inserted, a second member into which the lower portion of the first member is slidably received, and a protecting cap covering over the upper portion of the first member; wherein the cosmetic brush assembly further comprises,

a brush-supporting structure having a tubular body comprising a mounting portion
15 seated with the brush on its upper portion and formed with a groove at its lower portion and a tubular portion extending downward from the mounting portion, the mounting portion is provided with a hollow tube extending upward to insert into the penetration hole of the brush and formed with a penetration opening having a locking step at its upper end portion, the hollow portion of the tube is slidably contained with
20 cylindrical element which is elastically supported by a spring, the mounting portion is formed with a hole communicating with the hollow portion of the tube;

a guiding member having an aperture on its bottom, into which the tubular body separably fit, and which is fixed at the lower interior of the first member; and

a length variable member comprising a supporting member having a supporting disc

fixed on the lower interior of the second member and a outermost segment extending upward from the supporting disc to pass the aperture of the guiding member and formed with a upper opening at its upper portion, a middle segment being slidably capable of involving in the outermost segment and formed with a upper opening at its top, a hollow coupling segment being slidably capable of involving in the middle segment and having a coupling portion at its upper portion engaged with the groove of the mounting portion and a cutout portion at its lower side, and an innermost segment having a horizontal element transversely installed at the cutout portion of the coupling segment to be caught the upper interior of the middle segment and a perpendicular element extending upward from the horizontal element and coupling with the cylindrical element through both the interior of the coupling segment and the hole of the mounting portion;

wherein the inner side of the protecting cap is provided with a pressing projection being inserted into the interior of the tube through the penetration opening of the tube and having an insertion end provided with a step portion being capable of engaging with the locking step.

12. A cosmetic brush assembly according to claim 11, wherein the insertion end portion of the pressing projection has a conical structure or a pyramidal structure.

13. A cosmetic brush assembly according to claim 11, wherein the upper portion of the cylindrical element is provided with a slant surface.

14. A cosmetic brush assembly according to claim 11, wherein the lower surface of

the mounting portion is provided with a downward projection detachably engaging with the upper portion of the innermost segment when the length variable member is constricted to its shortest length.

5 15. A cosmetic brush assembly according to claim 11, wherein there is provided with an elastic member surrounding the length variable member in the hollow portion of both the mounting portion and the guiding member.

16. A cosmetic brush assembly comprising;

10 a first member of which both ends are open, the first member is fixedly installed with a guiding member;

a brush supporting structure slidably received in the first member, the brush supporting structure has a body provided with brush at its upper portion and formed with a hole and a upward extending member extending upward from the body to the
15 brush and having a hollow portion which communicating with the hole and a upper opening;

a second member into which the lower portion of the first member is slidably received;

a protection cap covering the upper portion of the first member and having a pressing
20 projection separably engaging into the upper opening of the upward extending member; and

a length variable member having a supporting disc and a plurality of segments, the supporting disc is fixed on the inner bottom of the second member to be positioned in the lower portion of the guiding member and the segments are connected each other

and are extended to the upward extending member;

wherein, the plurality of segments comprises an outermost segment, and a coupling segment, the outermost segment is engaged with the supporting disc and separably engaged with the guiding member, the coupling segment is slidably received in the outermost segment and has a coupling portion engaging with the brush supporting structure,

the upper end of the length variable member positioned in the upward extending member is provided with a cylindrical member elastically supported by a spring.

10 17. A cosmetic brush assembly according to claim 16, wherein the upper portion of the guiding member is provided with elastic pieces having inner projection, the periphery of the segment connected with the supporting disc is provided with a groove, the groove is separably engaged with the inner projection.

15 18. A cosmetic brush assembly according to claim 17, wherein the elastic pieces has a convex structure.

19. A cosmetic brush assembly according to claim 16, wherein the lower portion of the body is formed with a receiving space positioned with the elastic pieces.

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20. A cosmetic brush assembly according to any one of claims 16, further comprising an elastic member positioned between the brush supporting structure and the guiding member.